# OLD MIDLAND PRODUCTS SUPERFUND SITE

Ola, Yell County, Arkansas

**EPA ID No: ARD980745665** 

Site ID: 0600216



EPA Region 6
Congressional District: 61

Contact: Ruben Moya (214) 665-2755

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## Background

The Old Midland Products Site consists of 37.75 acres located in Yell County, Arkansas, about one-half mile east of the City of Ola. The site is bordered by Highway 10 to the south and extends north to Old Highway 10. A right-of-way for the Little Rock and Western Railway passes through the northern portion

of the site. Ola Mountain rises to an elevation of 1200 feet just south of the site. Two parcels of land are included at the site as follows: first, an area of about 2.75 acres, which included the former wood treatment building and waste water impoundments; and second, an area of about 35 acres, which surrounds the first parcel and extends between the right-of-ways for Old Highway 10 and Highway 10.



The area bounding the Site is a mixture of residential, farming, and transportation activities. East of the site is bounded by a small piece of open land used for livestock grazing. Tracks of the Little Rock and Western Railroad cut through the northern third of the site and run in a general east to west direction. The northern portion of the site (north of the railroad track) is partially overgrown with brush and small trees. This area has not been utilized since site remediation work was initiated in 1992. Old Highway 10, the northern boundary of the Site, has trailer homes and chicken houses on its north side across from the site. Immediately to the west bordering the site is a residence and a small portion of farmland. Across Highway 10, the southern border of the site is a partially wooded hill that rises toward a residential and small farm area.

Old Midland Products operated from 1969 to 1979 as a wood preserving-treatment plant. However, aerial photographs indicate a saw mill may have been in operation as early as 1960. Former structures from past operations included several buildings used to house two saw mills, a wood-preserving treatment plant, raw material, waste storage lagoons, and water treatment settling lagoons. Historical activities at the site include treating lumber with creosote and pentachlorophenol (PCP). Treated lumber was allowed to dry in open areas to the east and west of the lagoon and treatment building locations. Effluent from the treatment process containing PCP and polycyclic aromatic hydrocarbons (PAHs) was discharged into waste lagoons. Waste lagoon overflows occurred with drainage entering the intermittent stream west of the lagoons. In addition, operation of the lagoons resulted in contamination of the shallow groundwater with an organic nonaqueous phase liquid and an associated dissolved organic liquid.

On March 24, 1988, the EPA issued a Record of Decision (ROD) selecting a remediation alternative for the site that included onsite thermal incineration of contaminated soils, sludge, and sediments. This remedy also included extraction and treatment of contaminated groundwater. Following the successful treatment of the contaminated solid materials at the site, contaminated groundwater was treated onsite from 1994 to August 2006 (with a 2-year hiatus). In February 2006, an Amended ROD was issued, which changed the remedy to a Technical Impracticability Waiver for the area of highest contaminant concentration in groundwater and the selection of Monitored Natural Attenuation to address the dissolved groundwater contaminant plume. Institutional Controls are also included as a component of the amended ROD to provide additional risk reduction by controlling exposure to site groundwater.

## **Current Status -**



ADEQ is currently performing operation and maintenance activities at the site. ADEQ and the property owner executed and recorded (on August 25, 2008) a restrictive covenant to restrict use of ground water at the site.

Ground water samples were collected during September and October 2006 to evaluate the natural attenuation of the ground water contaminants, which include pentachlorophenol and

polycyclic aromatic hydrocarbons. A review of the sampling results (Shaw, 3/1/2007) determined that natural attenuation was occurring as indicated by reduced contaminate levels. In addition, the reduced oxidation/reduction potentials and nitrate levels, along with increased ferrous iron, alkalinity, and chloride relative to un-contaminated wells indicate that microbial degradation is an active process art the site.

The previous Five-Year Review was completed in May 2006 and determined that the site remains protective of human health and the environment. A Third Five Year Review was conducted in FY11. It was completed in July, 2011 and found to be protective of human health and the environment.

### Benefits -

The excavation, incineration, and backfilling of 108,000 tons of soil eliminated risks from pentachlorophenol and polycyclic aromatic hydrocarbon exposures. It also prevented this material from acting as a continuing source for ground water contamination. The ground water pump-and-treat system has recovered and treated over 12,000,000 gallons of contaminated ground water. The contaminant plume is currently stable and not expanding.

The site is currently ready for anticipated use (non-residential).

## National Priorities Listing (NPL) History -

Proposal Date: October 15, 1984 Final Listing Date: July 10, 1986

Population: Approximately 75 people live within a one-mile radius of the site; and 1,900 people live

within a four-mile radius. The City of Ola has a population of approximately 1,200. Land

use in the vicinity is a mixture of residential, farming, forestry, and transportation activities.

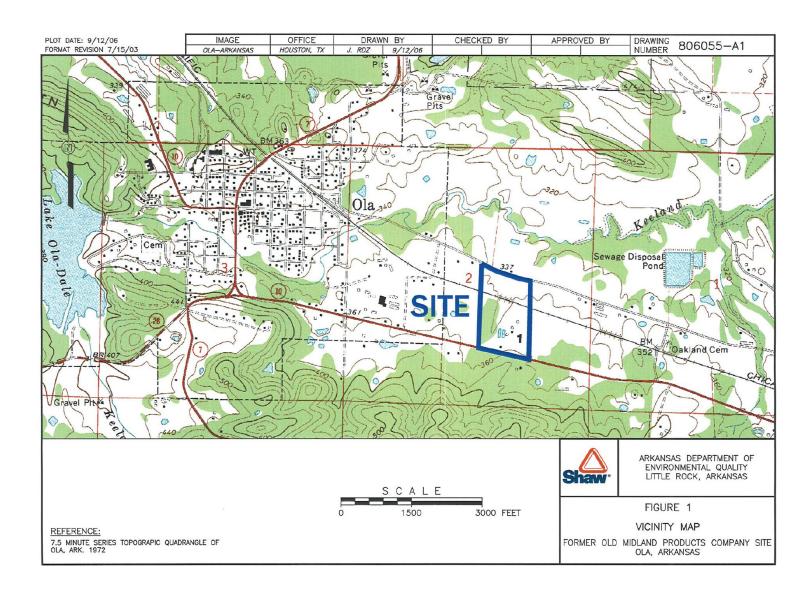
Setting:

The site covers 37.75 acres on a flat area with a uniform gentle slope (2-3%) toward the north-northwest. It is bordered by Highway 10 to the south and extends north to Old Highway 10. A right-of-way for the Little Rock and Western Railway passes through the northern portion of the site. Ola Mountain rises to an elevation of 450 feet just south of the site.

Hydrology:

The ground water aquifer is a fractured shale zone. It is below a silty clay layer that acts as an aquitard (i.e., resists ground water movement) that confines the aquifer. Ground water in the area occurs under artesian conditions and flows through fractures, faults, bedding planes and weathered zones. The shallowest water-producing interval occurs at depths of 15 to 20-feet below ground surface in a zone 3 to 5-feet thick.

## Site Map



#### Wastes and Volumes —

A sawmill facility and wood preserving chemical plant operated on the Site from 1969 until 1979. The wood treating process included the use of creosote and pentachlorophenol to preserve the wood from bacterial and insect degradation. Wastes from the treatment process contained pentachlorophenol and polycyclic aromatic hydrocarbons. These wastes were discharged into lagoons, which at times overflowed to the intermittent stream flowing to the north. The lagoons also resulted in contamination of the shallow ground water on-site with an organic liquid phase and an associated dissolved organic phase. The volume of contaminated ground water was originally estimated to be 450,000 gallons.

#### Health Considerations —

Ground water in the area is used as a drinking water source. The Remedial Investigation Report found that there were two water wells down gradient of the site within about 1,500-feet. One 80-foot deep well is located approximately 450-feet west-northwest of the former on-site lagoons. These wells are sampled twice per year to document that they are not impacted by any site contaminants. The ground water contamination is contained within the on-site area. Several of the contaminants, including pentachlorophenol and benzo (a) pyrene, exceed the Maximum Contaminant Levels (MCL).

The site's Environmental Indicator status is human exposure under control and ground water migration under control.

#### Record of Decision -

The Record of Decision was signed on March 24, 1988. The selected remedy included the following:

- Excavation of contaminated soil and sediments and on-site thermal destruction.
- Pump and treatment of the ground water.

Construction completion was achieved on December 21, 1993. Between 1991 and 1993, the contaminated soil was excavated to a depth of about 20 feet below ground surface and incinerated. The ash resulting from soil incineration was backfilled on the site and covered with a minimum of 6-inches of clay and three-inches of topsoil. The ground water recovery wells were installed in 1993 and began operation in 1994. The ground water recovery system includes 8 extraction wells that together recover 10-gallons per minute and a small amount of free product. While this system removed contaminated ground water, it did not restore the ground water for drinking water use. The recovery system was shut down in August 2006 and the amended remedy described below was implemented.

An Amended ROD was signed on June 9, 2006. It included a Technical Impracticability Waiver for ground water due to the present of a separate oil phase and aquifer fracturing. The selected remedy was changed to the following:

- Install 6 new ground water monitoring wells and implement Monitored Natural Attenuation.
- Continue monitoring of nearby drinking water wells.
- Implement Institutional Controls to prevent use of the contaminated ground water.
- Retain and mothball the existing pump-and-treat remediation system.

ADEQ completed the Remedial Design plans in September 2006 to implement the remedy selected in the Amended ROD, and construction started on September 18, 2006. Installation of additional monitoring wells and mothballing the water treatment plant were completed in December 2006. The Remedial Action Report was completed in June 2007 to document the work completed.

## **Community Involvement -**

Community Involvement Plan: June 2005

Proposed Plan: June 14, 2005

Public Meeting: June 30, 2005

Technical Assistance Grant: Availability Notice – January 1989

No Final Applications received

## Site Contacts -

(214) 665-2755 EPA Remediation Project Manager: Ruben Moya State Project Manager: Mark Moix (501) 682-0852 EPA Community Involvement: June Hoey (214) 665-8522 EPA Site Attorney: Amy Salinas (214) 665-8063 **EPA Public Liaison** Donn R. Walters (214) 665-6483 EPA Toll-Free Telephone Number: (800) 533-3508

Information Repository: Two Rivers School District; Office of the Superintendent

510 West Main Street Plainview, AR 72857 Phone: (479) 272-3113